METHOD OF PROCESSING OF WORN-OUT TYRES

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Abstract of RU2128115

FIELD: processing of worn-out tyres. SUBSTANCE: bead rings are detached from the tyre, the tyre is cut along the generating line, ground in normal conditions in three stages. In the first and second stages use is made of roller-type crushers with sets of cutters with a distance between them of 50 to 100 mm, and in the crusher of the second stage use is made of a calibrating screen with holes of 10 to 40 mm in diameter. Then, the obtained crushed vulcanizate is fractionated and fine-crushed in the third stage with a subsequent separation and fractionation on the sieve of crushed vulcanizate and subsequent processing by mixing with vulcanizing agent and plasticizer and processing of the obtained compound by extrusion. Crushing in the third stage is accomplished in an extrusion-type apparatus in the conditions of shearing strains sufficient for ripping-up of the textile and metal cords without its additional crushing. Fractionation operation is accomplished through a sieve with meshes measuring 1 to 5 mm. For mixing of crushed vulcanizate with vulcanizing agent and plasticizer use is made of an apparatus with a blade-type rotor rotating at a speed of 300 to 1000 rpm, degree of apparatus filling of 2 to 20% during 7 to 60 S. The components in the compound have the following relation, mass number: crushed vulcanizate - 100, vulcanizing agent - 1 to 5, plasticizer - 1 to 5. Extrusion is accomplished in a punch-type mould at a temperature of 143 to 180 C, pressure of 4 to 20 MPa during 10 to 40 min. EFFECT: use of crushed vulcanizate of a wide fractional composition, reduced power consumption, relation of optimum morphology of particles of crushed vulcanizate, its effective modification. 4 cl

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